



SEQUENCE LISTING

#5

<110> Kimm, Anthony

<120> Hypoallergenic Transgenic Soybeans

<130> BB1432 US NA

<140> CURRENT APPLICATION NUMBER: US/09/805,694

<141> CURRENT FILING DATE: 2001-03-14

<150> 60/189,823

<151> 2000-03-16

<160> 16

<170> Microsoft Office 97

<210> 1

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<212> DNA

<213> chimeric construct

<400> 1

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<212> DNA

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<400> 2

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 <213> Glycine max

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<211> 454
<212> PRT
<213> Glycine max

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Glu Met Arg Val Leu Lys Ser His Gly Gly Arg Ile Phe Tyr Arg His
      35             40             45

Met His Ile Gly Phe Ile Ser Met Glu Pro Lys Ser Leu Phe Val Pro
      50             55             60

Gln Tyr Leu Asp Ser Asn Leu Ile Ile Phe Ile Arg Arg Gly Glu Ala
      65             70             75             80

Lys Leu Gly Phe Ile Tyr Asp Asp Glu Leu Ala Glu Arg Arg Leu Lys
      85             90             95

Thr Gly Asp Leu Tyr Met Ile Pro Ser Gly Ser Ala Phe Tyr Leu Val
      100            105            110

Asn Ile Gly Glu Gly Gln Arg Leu His Val Ile Cys Ser Ile Asp Pro
      115            120            125

Ser Thr Ser Leu Gly Leu Glu Thr Phe Gln Ser Phe Tyr Ile Gly Gly
      130            135            140

Gly Ala Asn Ser His Ser Val Leu Ser Gly Phe Glu Pro Ala Ile Leu
      145            150            155            160

Glu Thr Ala Phe Asn Glu Ser Arg Thr Val Val Glu Glu Ile Phe Ser
      165            170            175

Lys Glu Leu Asp Gly Pro Ile Met Phe Val Asp Asp Ser His Ala Pro
      180            185            190

Ser Leu Trp Thr Lys Phe Leu Gln Leu Lys Lys Asp Asp Lys Glu Gln
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Val	Asn	Glu	Lys	Ile	Glu	Asn	Lys	Asp	Thr	Ala	Gly	Ser	Pro	Ala	Ser
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Tyr	Asn	Leu	Tyr	Asp	Asp	Lys	Lys	Ala	Asp	Phe	Lys	Asn	Ala	Tyr	Gly
			260					265					270		
Trp	Ser	Lys	Ala	Leu	His	Gly	Gly	Glu	Tyr	Pro	Pro	Leu	Ser	Glu	Pro
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Ser	Thr	Ser	Ala	Arg	Lys	Asn	Lys	Pro	Gln	Phe	Leu	Ala	Gly	Ala	Ala
		370				375					380				
Ser	Leu	Leu	Arg	Thr	Leu	Met	Gly	Pro	Glu	Leu	Ser	Ala	Ala	Phe	Gly
385					390					395					400
Val	Ser	Glu	Asp	Thr	Leu	Arg	Arg	Ala	Val	Asp	Ala	Gln	His	Glu	Ala
				405					410					415	
Val	Ile	Leu	Pro	Ser	Ala	Trp	Ala	Ala	Pro	Pro	Glu	Asn	Ala	Gly	Lys
			420					425					430		
Leu	Lys	Met	Glu	Glu	Glu	Pro	Asn	Ala	Ile	Arg	Ser	Phe	Ala	Asn	Asp
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 <212> DNA
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<210> 6
<211> 75
<212> PRT
<213> Glycine max

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20 25 30
Asn Leu Ala Asp Thr Tyr Arg Gly Pro Cys Phe Thr Thr Gly Ser Cys
35 40 45
Asp Asp His Cys Lys Asn Lys Glu His Leu Leu Arg Gly Arg Cys Arg
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Asp Asp Phe Arg Cys Trp Cys Thr Lys Asn Cys
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<210> 7
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: P34 gene primer

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<210> 8
<211> 30
<212> DNA
<213> Glycine max

<220>
<223> Description of Artificial Sequence: P34 gene primer

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<210> 9
<211> 701
<212> DNA
<213> Glycine max

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<210> 10
<211> 119
<212> PRT
<213> Glycine max

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Ile Leu Phe Ile Ser Met Val Ser Ser Ser Ser His Tyr Asp Pro Gln
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Pro Gln Pro Ser His Val Thr Ala Leu Ile Thr Arg Pro Ser Cys Pro
35 40 45

Asp Leu Ser Ile Cys Leu Asn Ile Leu Gly Gly Ser Leu Gly Thr Val
50 55 60

Asp Asp Cys Cys Ala Leu Ile Gly Gly Leu Gly Asp Ile Glu Ala Ile
65 70 75 80

Val Cys Leu Cys Ile Gln Leu Arg Ala Leu Gly Ile Leu Asn Leu Asn
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Arg Asn Leu Gln Leu Ile Leu Asn Ser Cys Gly Arg Ser Tyr Pro Ser
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Asn Ala Thr Cys Pro Arg Thr
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<210> 11
 <211> 396
 <212> DNA
 <213> Glycine max

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<210> 12
 <211> 131
 <212> PRT
 <213> Glycine max

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Gly Asn His Leu Thr His Ala Ala Ile Ile Gly Gln Asp Gly Ser Val
 20 25 30

Trp Leu Gln Ser Thr Asp Phe Pro Gln Phe Lys Pro Glu Glu Ile Thr
 35 40 45

Ala Ile Met Asn Asp Phe Asn Glu Pro Gly Ser Leu Ala Pro Thr Gly
 50 55 60

Leu Tyr Leu Gly Gly Thr Lys Tyr Met Val Ile Gln Gly Glu Pro Gly
 65 70 75 80

Ala Val Ile Arg Gly Lys Lys Gly Pro Gly Gly Val Thr Val Lys Lys
 85 90 95

Thr Gly Ala Ala Leu Ile Ile Gly Ile Tyr Asp Glu Pro Met Thr Pro
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Gln Gly Tyr
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<210> 13
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<400> 13

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 20 25 30
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 35 40 45
 Ala Ile Met Asn Asp Phe Asn Glu Pro Gly Ser Leu Ala Pro Thr Gly
 50 55 60
 Leu Tyr Leu Gly Gly Thr Lys Tyr Met Val Ile Gln Gly Glu Pro Gly
 65 70 75 80
 Ala Val Ile Arg Gly Lys Lys Gly Pro Gly Gly Val Thr Val Lys Lys
 85 90 95
 Thr Gly Ala Ala Leu Ile Ile Gly Ile Tyr Asp Glu Pro Met Thr Pro
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 <212> DNA
 <213> Glycine max

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```

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<211> 495

<212> PRT

<213> Glycine max

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```

Met Ala Lys Leu Val Phe Ser Leu Cys Phe Leu Leu Phe Ser Gly Cys
  1                      5                      10                      15

```

```

Cys Phe Ala Phe Ser Ser Arg Glu Gln Pro Gln Gln Asn Glu Cys Gln
                20                      25                      30

```

```

Ile Gln Lys Leu Asn Ala Leu Lys Pro Gly Asn Arg Ile Glu Ser Glu
    35                      40                      45

```

```

Gly Gly Leu Ile Glu Thr Trp Asn Pro Asn Asn Lys Pro Phe Gln Cys
    50                      55                      60

```

```

Ala Gly Val Ala Leu Ser Arg Cys Thr Leu Asn Arg Asn Ala Leu Arg
    65                      70                      75                      80

```

```

Arg Pro Ser Tyr Thr Asn Gly Pro Gln Glu Ile Tyr Ile Gln Gln Gly
                85                      90                      95

```

```

Lys Gly Ile Phe Gly Met Ile Tyr Pro Gly Cys Ser Ser Thr Phe Glu
    100                      105                      110

```

```

Glu Pro Gln Gln Pro Gln Gln Arg Gly Gln Ser Ser Arg Pro Gln Asp
    115                      120                      125

```

```

Arg His Gln Lys Ile Tyr Asn Ser Arg Glu Gly Asp Leu Ile Ala Val
    130                      135                      140

```

```

Pro Thr Gly Val Ala Trp Trp Met Tyr Asn Asn Glu Asp Thr Pro Val
    145                      150                      155                      160

```

```

Val Ala Val Ser Ile Ile Asp Thr Asn Ser Leu Glu Asn Gln Leu Asp
                165                      170                      175

```

```

Gln Met Pro Arg Arg Phe Tyr Leu Ala Gly Asn Gln Glu Gln Glu Phe
    180                      185                      190

```

Leu	Lys	Tyr	Gln	Gln	Glu	Gln	Gly	Gly	His	Gln	Ser	Gln	Lys	Gly	Lys	195	200	205
His	Gln	Gln	Glu	Glu	Glu	Asn	Glu	Gly	Gly	Ser	Ile	Leu	Ser	Gly	Phe	210	215	220
Thr	Leu	Glu	Phe	Leu	Glu	His	Ala	Phe	Ser	Val	Asp	Lys	Gln	Ile	Ala	225	230	235
Lys	Asn	Leu	Gln	Gly	Glu	Asn	Glu	Gly	Glu	Asp	Lys	Gly	Ala	Ile	Val	245	250	255
Thr	Val	Lys	Gly	Gly	Leu	Ser	Val	Ile	Lys	Pro	Pro	Thr	Asp	Glu	Gln	260	265	270
Gln	Gln	Arg	Pro	Gln	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Lys	Pro		275	280	285
Gln	Cys	Lys	Gly	Lys	Asp	Lys	His	Cys	Gln	Arg	Pro	Arg	Gly	Ser	Gln	290	295	300
Ser	Lys	Ser	Arg	Arg	Asn	Gly	Ile	Asp	Glu	Thr	Ile	Cys	Thr	Met	Arg	305	310	315
Leu	Arg	His	Asn	Ile	Gly	Gln	Thr	Ser	Ser	Pro	Asp	Ile	Tyr	Asn	Pro	325	330	335
Gln	Ala	Gly	Ser	Val	Thr	Thr	Ala	Thr	Ser	Leu	Asp	Phe	Pro	Ala	Leu	340	345	350
Ser	Trp	Leu	Arg	Leu	Ser	Ala	Gly	Phe	Gly	Ser	Leu	Arg	Lys	Asn	Ala	355	360	365
Met	Phe	Val	Pro	His	Tyr	Asn	Leu	Asn	Ala	Asn	Ser	Ile	Ile	Tyr	Ala	370	375	380
Leu	Asn	Gly	Arg	Ala	Leu	Ile	Gln	Val	Val	Asn	Cys	Asn	Gly	Glu	Arg	385	390	395
Val	Phe	Asp	Gly	Glu	Leu	Gln	Glu	Gly	Arg	Val	Leu	Ile	Val	Pro	Gln	405	410	415
Asn	Phe	Val	Val	Ala	Ala	Arg	Ser	Gln	Ser	Asp	Asn	Phe	Glu	Tyr	Val	420	425	430
Ser	Phe	Lys	Thr	Asn	Asp	Thr	Pro	Met	Ile	Gly	Thr	Leu	Ala	Gly	Ala	435	440	445
Asn	Ser	Leu	Leu	Asn	Ala	Leu	Pro	Glu	Glu	Val	Ile	Gln	His	Thr	Phe	450	455	460
Asn	Leu	Lys	Ser	Gln	Gln	Ala	Arg	Gln	Ile	Lys	Asn	Asn	Asn	Pro	Phe	465	470	475
Lys	Phe	Leu	Val	Pro	Pro	Gln	Glu	Ser	Gln	Lys	Arg	Ala	Val	Ala		485	490	495